

ERPP-Volume II

B. Holt --Minor Comments

Bureau of Reclamation

The following comments are nit-pickers and occasional factual errors that can be easily corrected. By and large, I didn't find much to nit-pick.

Vol.II, page 114, col. 1, last para. -- The discussions of peak flows would be improved if modified to say "peak mean monthly" in line 12 rather than "peak" and "... mean monthly peak of nearly 10,000 cubic feet per second" in line 10. The peak flows have always been in the tens of thousands of cfs at Redding.

Vol. II, page 114 -- It would be useful to call the readers attention to the data shown in the figures, specifically noting that the wet years have lower peak mean flows while the dry years have higher peak mean flows and that the peaks have shifted from March to July.

Vol. II, page 115, col. 1, para. 1 and 2-- need to space between the two paragraphs at the top of the column.

Vol. II, page 115, col. 1, para.3, line 2 --- "to coarser materials" should be "and coarser materials"

Vol. II, page 115, col. 1, para.3, line 11 -- Replace the period with a comma and replace "As" with "but". You have a sentence fragment otherwise.

Vol. II, page 115, col. 1, para.3, line 16 -- Add "also" after "Spawning gravel"

Vol. II, page 115, col.2, para.2, line 1 -- Replace "and" with "concurrent with"

Vol. II, page 117, col. 1, para.2 -- Thetext seems redundant here.

Vol. II, page 117, col. 1, para.5 -- Need to space after the paragraph.

Vol. II, page 118, col. 1, para.2, line 8 -- Insert "long-term water delivery during" before "gates up". The gates up operation is not at Reclamation's discretion. It is mandated by NMFS, and it is unlikely that the gates will ever be closed during those periods again. Hence the need to change the meaning of the sentence.

Vol. II, page 118, col. 1, para.2, last sentence-- Delete "will". You are discussing a current condition, not a future one.

Vol. II, page 118, col.2, para. 2 -- How does "unnatural predation" near bdirges, etc. differ from the "natural" predation that would result from additions of large woody debris? I'm unconvinced that bridge piers are inherently bad as is implied by this paragraph.

Vol. II, page 118, col.2, para. 3, line 3 -- Insert "during the episodic mass releases of hatchery

fish”.

Vol. II, page 118, col.2, para. 5, next to last line -- Change “to” to “so”

Vol. II, page 119, col.1, para. 2 -- Wouldn't the Colusa Drain act like a point source where it enters the river?

Vol. II, page 119, col.1, para. 3 -- Anderson Creek drain the coast ranges, not Mt. Lassen. Also Olney Creek tends to be mentioned on DWR maps for the coast range drainers in this river segment.

Vol. II, page 119, col.1, para.3, last sentence -- Isn't this statemtn fall-run specific. If so, it should be modified to so say.

Vol. II, page 119, col.2, para. 2, line 7 -- You might add “(Murphy Slough)” after “M&T Ranch”

Vol. II, page 121, col.1, para. 1, next to last sentence -- Would the added releases from Shasta in dry years really do my physical work? This bit of text seems misleading. The purpose of the flows in those years would be to create a pulse flow, although I question the need to do that unless one doesn't occur naturally and even then it might be questionable since droughts are part of the natural regime.

Vol. II, page 121, col.1, para. 2, line 8 -- Delete “and supplementing”-- flow doesn't supplement natural gravel recruitment, it simply maintains it.

Vol. II, page 121, col.1, para. 3, line 8-- Delete “and enhancing” and add “and replacing gravel supplies now trapped by Shasta Dam.” to the end of the sentence. I really don't think we want to enhance erosion in the tribs. Stop gravel mining, yes. Increase land erosion, no.

Vol. II, page 121, col.2, para. 3, line 2 -- Insert “, as was the case upstream,” after “requires”. Note that the latter part of the paragraph talks about things that will happen if the requirements for the Keswick to Red Bluff segment are met, so this is perhaps redundant.

Vol. II, page 122, col.1, para. 2 -- You might note that nursery areas are increased by river meandering.

Vol. II, page 122, col.1, para. 5, last sentence -- Aren't you advocating creating predator habitat with berms after bashing bridge piers for doing the same? The text should be consistent on the matter of structures whether they be bridges, berms, or large woody debris.

Vol. II, page 122, col.2, para. 3 -- How does the call for emergent vegetation square with the call for meanders or with the actions on the Trinity River where removal of vegetation has been a preferred management/restoration tool.?

Vol. II, page 123, col.2, para. 3, line 8 -- Insert “and” after the semi-colon and then in line 9,

insert "once space is provided for them" after "corridor". There is presently very little space for riparian zones in this river segment.

Vol. II, page 123, col.2, para. 3, last sentence -- is this a significant "nursery area" or simply a significant "migration corridor"? I question the nursery value given the emphases on having healthy shaded riverine habitat for nursery areas, but I am no authority on this this.

Vol. II, page 124, col.1, para. 3, first sentence -- I think you want "require" rather than "are" as the verb, but I also question relating health to just those two seasons. I think what you are driving at is healthy streams require periodic bank full flows. If so, just say so.

Vol. II, page 124, col.1, para.3 --I question this paragraph because winter flows often exceed the supplemental flows anyway. Last winter, for example we let loose 79,000 cfs from Keswick, the legal maximum.

Vol. II, page 124, col.1, para. 4, first sentence -- insert "due to gravel mining" after "" in line 3. In line 6, insert "some" before "aquatic invertebrates".

Vol. II, page 124, col.2, para. 1, first sentence --The first full sentence might be more accurate if it said "The two major sources remaining are Cottonwood Creek and natural bank erosion."

Vol. II, page 125, col.1, para.3, line 6 -- the wording is garbled-- try "...largest unscreened diversions, many medium-sized..."

Vol. II, page 125, col.2, para. 2, line 4 -- Why not say "diversion dams" rather than "structures"?

Vol. II, page 125, col.2, para. 2, line 8 -- I suggest saying "Passage of these dams...", although I question how serious a problem this really is. I have the impression that the recent data from Red Bluff indicate the problem is less than once thought, but in the interest of time, I'd let it stand.

Vol. II, page 129, col.1, para. 4, line 8 -- I think this statement is only true of Stony Creek and the sentence should reflect that. I suggest the sentence read "...the placement of large reservoir on Stony Creek has impeded gravel recruitment. In addition, instream gravel mining depletes gravel ...". (The other westside creeks south of Clear Creek are undammed except for small diversion structures. Putah Creek, the only other stream with a large reservoir (Lake Berryessa) no longer reaches the Sacramento River, and is generally dry by the time it gets to the Yolo Bypass.)

Vol. II, page 134, col.1, para. 3-- I believe the second reference to between Keswick Dam and RBDD needs to be altered to "Jellys Ferry" or some such because the compliance points differ according to year type. Contact Paul Fujitani of the CVO for the correct language.

Vol. II, page 139, col.1, para. 1-- Is it still true that IMM contributes over half the metals in the river? It was at one time, but my understanding is the emissions have dropped considerably under

the current treatment plan. Long term O&M of the treatment facilities is a difficult matter, however, so there is a risk of a return to those high emissions.

Vol. II, page 152-- No mention is made of the history of hydraulic mining in Clear Creek, which at one time was the state's largest producing gold field. That past abuse has contributed to the problems the text seems to attribute solely to Whiskeytown (and Saeltzer) Dam(s).

Vol. II, page 152, col 2, para. 3, line 2-- The full name of the dam is the McCormick -Saeltzer Dam and seems to be more commonly referred to as the Seltzer dam than as the McCormick dam in conversations I've had with locals. I suggest you use the full name followed by "McCromick" in parentheses.

Vol. II, page 153, col 1, para.2, line 2 -- I would quibble with a "foothills" origin for Clear Creek since some of those "foothill" go to 5,000 feet, but I'll grant that isn't the crest of the range.

Vol. II, page 153, col 2, para. 1, line 1-- "creek" would be less confusing than "river"

Vol. II, page 153, col 2, para. 2 -- The space behind Seltzer Dam is pretty full of sediments now so it is unlikely that it will trap much gravel, but Whiskeytown is a definite trap. Still, this sentence is ok as it is. The last sentence, however, should reference the Bureau of Land Management not Reclamation as the land acquisition agency. These lands have very high potential for development as wetlands/waterfowl habitat.

Vol. II, page 155, col 2, para. 2, last sentence-- Is there any potential for creating some sort of ladder around these falls, and if so, would it be worthwhile? Since we have lost so much spawning area because of the major dams, we might regain some habitat by circumventing natural barriers.

Vol. II, page 158, col 2, para.1-- The statement about ozone is ambiguous at best and possibly incorrect. Coleman already has capacity to handle all the egg trays (the most sensitive stage) and is installing the capacity to protect all the early stages of development. They will simply not be putting in the equipment needed to ozonate the water in the raceways. Contact Tom Nelson or Dan Free (916/865-4271) to confirm details.

Vol. II, page 158, col 2, para.3 -- The hatchery operation was successful except the winter-run returned to Battle Creek. A small spawning and rearing facility for winter-run is now under construction at Shasta Dam to take over this operation.

Vol. II, page 160 -- I notice there is no vision for the upper watershed areas, including Iron Mountain Mine. While recognizing this section of the document is concerned with the areas below Keswick Dam, it seems that some part of Vol. II should address the upper watershed and acid mine drainage, although references to the mine would need to be carefully hedged to keep CalFed clear of the litigation tangle.

Vol. II, page 163, col 2, para.1 -- There is also a small group focusing on Sulphur Creek which

flows into the Sacto River just upstream of the Wintu Pumping Plant.

Vol. II, page 189, col.1, para. 2-- If you want a reference, you might be able to cite Maslin, et al., 1997, Intermittant streams as rearing habitat for Sacramento River Chinook Salomn (Oncorhynchus tshawytscha), Report for Grant #14-48-0001-96724, 89 pp. I'd check with Maslin first to be sure that would be appropriate.